

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Previously Presented) A balloon catheter comprising:
an elongated body extending between a proximal end and a distal end, said body internally having at least one lumen; and
a balloon made from a composite material composed of short-fibers for reinforcement and a matrix resin, said balloon being disposed on the distal side of said elongated body;
wherein the short-fibers in a longitudinal cross-section of the balloon comprise short-fibers oriented in the major-axis direction of the balloon, short-fibers oriented in the direction oblique to the major-axis direction and short-fibers oriented in the direction nearly perpendicular to the major-axis direction, and the short-fibers in a diametrical cross-section of the balloon include short-fibers oriented in the circumferential direction of the balloon, short-fibers oriented in the direction perpendicular to the circumferential direction, that is in a major-axis direction, and short-fibers oriented in the direction oblique to the circumferential direction; and
wherein said short-fibers are oriented in said balloon in such a manner that in a the longitudinal cross-section of said balloon 25% or more of said short-fibers are oriented in the major-axis direction of said balloon, 25% or more of said short-fibers are oriented in the direction oblique to the major-axis direction, and the remaining short-fibers are oriented in the direction nearly perpendicular to the major-axis

direction; and in a the diametrical cross-section of said balloon, 8% or more of said short-fibers are oriented in the circumferential direction of said balloon, 25% or more of said short-fibers are oriented in the direction perpendicular to the circumferential direction, that is, in the major-axis direction, and the remaining short-fibers are oriented in the direction oblique to the circumferential direction.

2. (Original) A balloon catheter according to claim 1, wherein said short-fiber is at least one kind selected from a group consisting of organic short-fibers and inorganic short-fibers.

3. (Original) A balloon catheter according to claim 2, wherein said organic short-fiber is a polymer short-fiber.

4. (Original) A balloon catheter according to claim 2, wherein said inorganic short-fiber is at least one kind selected from a group consisting of carbon short-fibers and metal short-fibers.

5. (Original) A balloon catheter according to claim 4, wherein said carbon short-fiber is made from nanocarbon.

6. (Previously Presented) A balloon catheter according to claim 4, wherein said short-fiber is one kind selected from a group consisting of carbon nanotubes and carbon nanofibers.

7. (Original) A balloon catheter according to claim 4, wherein said metal short-fiber is a whisker.

8. (Original) A balloon catheter according to claim 1, wherein said composite material is a material in which said short-fibers are uniformly dispersed in said matrix resin.

9. (Original) A balloon catheter according to claim 1, wherein said short-fibers are subjected to a surface modifying treatment.

10. (Original) A balloon catheter according to claim 1, wherein said composite material is a material in which said short-fibers are dispersed in said matrix resin by blending said short-fibers in said matrix resin while applying ultrasonic vibration to said short-fibers and said matrix resin.

11. (Original) A balloon catheter according to claim 1, wherein said composite material is obtained by blending said short-fibers in a precursor of said matrix resin before polymerization reaction, or in said precursor being during polymerization and thereby having a viscosity lower than a viscosity of the final polymerized product as said matrix resin.